

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Peterson Seed Division Pioneer Hi-Bred International, Inc.

Collicreas, there has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT Variety Protection Office, in the applicant(s) indicated in the said copy, and WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLI-CANT(S) FOR THE TERM OF seventeen Years from the date of this grant, subject TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EX-CLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT. OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Peterson Jade'

In Testimony Wathereof, Thave hereunte set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington

this 30th day of September in the year of our Lord one thousand nine hundred and seventy-four

Garl But

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UNITED STATES DEPARTMENT OF AGRICULTURE CONSUMER AND MARKETING SERVICE GRAIN DIVISION HYATTSVILLE, MARYLAND 20782

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.						
1. VARIETY NAME OR TEMPORARY	2. KIND NAME FOR			OFFICIAL USE ONLY		
DESIGNATION PETERSON JADE			PVPO NUMBER			
	SOYBEAN 72			Olv		
3. GENUS AND SPECIES NAME	4. FAMILY NAME (Botanical) FILING DATE TIME					
	Legumino	A.M.				
Glycine m <u>ax</u>	Leguminosae /		FEE RECEIVED	CHARGES		
6. NAME OF APPLICANT(S)		11, 1971	90.0			
	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP 8. TELEPHONE AREA Code) 8. TELEPHONE AREA CODE AND NUMBER					
PETERSON SEED CO., INC.				GGGE MIND MOMBEN		
,	3261 W. Airline Highway 319_231m3					
Dr. C.R. Weber, Breeder		oo, Iowa 507	'	319 - 2 3 4#0335		
		ios roma jor	OI			
		• •				
9. IF THE NAMED APPLICANT IS NOT A PER		10. STATE OF INC	DRPORATION	11. DATE OF INCOR-		
ORGANIZATION: (Corporation, partnership, a	association, etc.)			PORATION		
Corporation		Minnesot	a	June 1, 1960		
12. Name and mailing address of applica	ant representative(s) if any to serve	in this application			
PETERSON SEED CO., 3261 W. Airline Hig Waterloo, Iowa 507	hway Ol	-				
13. CHECK BOX BELOW FOR EACH ATTACHM	MENT SUBMITTED:		1			
x 12A. Exhibit A, Origin and Breed		•	ion 52, P.L. 91-577)			
[x] 12c. Exhibit C, Objective Descr.	iption of the Variet	y				
X 12D. Exhibit D, Data Indicative	of Novelty	· .				
X 12E. Exhibit E, Statement of the	Basis of Applicant	's Ownership				
The applicant declares that a viable sa ance of a certificate and will be replet (See Section 52, P.L. 91-577).						
14A. Does the applicant(s) specify that (See Section 83(a), P.L. 91-577) (1)	f ''Yes,'' answer 14	B and 14C below	.) X YES NO			
148. Does the applicant(s) specify that limited as to number of generations		beyond bree		erations of production Certified		
Applicant is informed that false representation herein can jeopardize protection and result in penalties.						
The undersigned applicant(s) of this se uniform, and stable as required in Sect Plant Variety Protection Act (P.L. 91-	ion 41 and is entitle	ed to protection u				
January 17, 1972	_	J' R	Weller SIGNATURE OF APPLIC	ANT) V.P.&Res Dar.		
January 17, 1972 (SIGNATURE OF APPLICANT) Pres.						
		(/			

Coms committee of the contraction of the contractio

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and \$50.00 fee to U.S. Dept. of Agriculture, Consumer and Marketing Service, Grain Division, Hyattsville, Maryland 20782. Retain one copy for your files. All items on the face of the form are self-explanatory unles noted below.

ITEM

- 5 Insert the date the applicant determined that he had a new variety.
- 12a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.
- 12b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.
- 12c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.
- 12d Provide complete data indicative of novelty. Seed and plant specimens may be submitted and seeds submitted may be sterile. Where possible, include photographs of plant comparisons, chemical tests, etc.
- 12e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

Revised Attachments: Peterson Jade soybean (Dec 31, 1973)

RIS

- 12.A. Peterson Jade originated from a cross of Verde x Kanrich.

 It is an F₂ derived line in the F₅. It was multiplied after the first test and has been tested for two years and will be tested along with further increases. It is uniform within for maturity, height, lodging, hila and seed coat color.
- Peterson Jade has purple flowers, grey pubescence, brown pod color, dull seed coat luster, green seed coat and cotyledon color, light buff hila and is resistant to shattering. As compared with commercial large-seeded types currently on the market it is more like Verde than any other variety, both having a green seed coat and green cotyledon when fully ripe. Jade yields 20 to 25% more than Verde, is earlier, has much larger seed, has better lodging resistance, and is far superior in resistance to shattering.
- 12.C. See Objective Description of Variety (Glycine Max).

 PETERSON
- 12.0. As compared with Verde, A Jade is 7 days earlier in maturity, 3 inches taller, has much larger seed and far superior seed quality. It yields at least 20% more than Verde and is higher in protein. It holds the seeds in its pods when ripe much better than Verde, and stands better making it a much easier crop to harvest. A 10 day old seedling of Jade grown under constant light in a growth chamber (500 foot candles using VHO Gro Lux lights) at 25 degrees centigrade and a humidity between 85 & 90% has a seedling length of 297 MM, a cotyledon length of 26 MM and a cotyledon width of 16 MM vs. 242 MM, 22 MM and 13 MM respectively for Verde.
- 12.E. The Peterson Seed Company is the sole owner of the Peterson Jade variety

UNITED STATES DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE GRAIN DIVISION HYATTSVILLE, MARYLAND 20782

EXHIBIT C (Soybean)

OBJECTIVE DESCRIPTION OF VARIETY SOYBEAN (GLYCINE MAX)

REUSED RUS

INSTRUCTIONS: See Reverse.	SOYBEAN (GLYC	INE MAX)	
NAME OF APPLICANT(S)	-		FOR OFFICIAL USE ONLY
	C. Dr. C.R. Weber - F	reeder	PVPO NUMBER
ADDRESS (Street and No., or R.F.D. No.	o.; City, State, and ZIP Code)	1	72076
3261 W. Airline Highwa		[VARIETY NAME OR TEMPORARY DESIGNATION
Waterloo, Iowa 50701			Peterson Jade
		f -his wasints	
Place the appropriate number th	at describes the varietal charac	eter of this variety	in the boxes below:
1. SEED SHAPE:			
1 = SPHERICAL $2 = \frac{S}{2}$	PHERICAL 3 = ELONGATE FLATTENED	4 = OTHER (6	Specify)
2. SEED COAT COLOR:		t :	SHADE:
1 = YELLOW 2 = (GREEN 3 = BROWN	4 = BLACK 1	2 1 = LIGHT 2 = MEDIUM 3 = DARK
J = OTHER (Speeding) =		SEED SIZE	
3. SEED COAT LUSTER:		 	
1 = DULL 2 =	SHINY	3 6 GRAMS PER	R 100 SEEDS
5. HILUM COLOR:		_	SHADE:
l=BUFF 2=YELLO	w 3 = BROWN 4 = GRAY	5 = IMPERFECT BLACK	1 = LIGHT 2 = MEDIUM 3 = DARK
6=BLACK 7=OTHER	(Specify)	BEACK	# 1 = LIGHT 2 = MEDIOM 0 = IIIII
6. COTYLEDON COLOR:		7. LEAFLET SIZE (S	ee Reverse):
		1 = SMALL	2 = MEDIUM 3 = LARGE
2 1 = YELLOW 2 = GREEN		2 I = SMALL	2 - M2510M
8. LEAFLET SHAPE:		_	
1 = OVATE 2 = OBLO	NG 3=LANCEOLATE 4=1	ELLIPTICAL 5 =	OTHER (Specify)
9. LEAF COLOR (See reverse):			10. FLOWER COLOR:
	2 = MEDIUM GREEN 3 = DARK G	SREEN	1 = WHITE 2 = PURPLE 2 3 = OTHER (Specify)
[3]		<u> </u>	3 = OTHER (Specify)
11. POD COLOR:		12: POD SET:	
2+ 1 = TAN 2 = BROW	N 3 ∓ BLACK	1 = SCATTE	RED 2 = CONCENTRATED
13. PLANT PUBESCENCE COLOR:	<u> </u>		SHADE:
l = GRAY 2 = BRO	WN 3 = OTHER (Specify)		1 1 = LIGHT 2 = MEDIUM 3 = DARK
14. PLANT TYPES (See Reverse):		15. PLANT HABIT:	
[3]	3 = INTERMEDIATE	1 = DETERM	INATE 2 = INDETERMINATE
		3 = OTHER (
16. HYPOCOTYL COLOR:		17. SEED PROTEIN:	
2 1 = GREEN 2 = PUR	PLE	1 = A	
18. NUMBER OF DAYS TO FLOWER (Place a zero in first box (e.g. 0 9	RING 19. MATURITY GROUP:	? = 0 3 =	. 4 = n 5 = m
J 0 I 1	" [[] `-°°	'=v 8='	-
5 8	IG GROWN UNDER CONSTANT LIGHT	-	
(e.g. $0 2$) when size is 9 mm.	or less.)	, (orowin chamber) K	
MM. LENGTH	MM. LENGTH OF COTYLEDON	<u> </u>	MM. WIDTH OF COTYLEDON
21. DISEASE: (Enter 0 =Not Tester			
O BACTERIAL O SOYBE. CYST		PURPLE STAIN	POD AND STEM BLIGHT O KNOT
O FROGEYE O STEM	O PHYTO- O PHTHORA	BROWN STEM ROT	TARGET O BROWN SPOT
O BUD O WILDE	E BHIZOCTONIA G		Bacterial Blight
			

2. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.					
CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY		
Plant shape	Prize	Petiole angle	Kanrick		
Leaf shape	Prize	Seed size	none		
Leaf color	Verde	Seed shape	Kanrick		
Leaf surface	Verde	Seedling pigmentation	Verde		

23. GIVE DATA F	OR SUBMITTED AN	D 2IMIL'AK	2 LANDAKD	VARIETY:
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Peterson Jade	NO. OF DAYS	LODGING	PLANT	LEAF	SIZE	CON	TENT	AVERAGE NO. OF PODS PER	IODINE NO.
` VARIETY	TO MATURITY	SCORE	HEIGHT	Width	Length	Protein	Oil	PLANT	IODINE NO.
Peterson Jade	120	2.4	34			42.9	20.9%	Depends on	
Name of similar variety Disoy	109	2.8	33 🖖			41.6	21.6	Planting r	ate

INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for completing this form:

- 1. Scott, Walter O. and Samuel R. Aldrich, 1970, Modern Soybean Production, The Farmer Quarterly.
- 2. Norman, A. G., 1963, The Soybean: Genetics, Breeding, Physiology, Nutrition, Management.
- 3. McKie, J. W., and K. L. Anderson, 1970, The Soybean Book.

LEAF COLOR: Nickerson's or any recognized color fan may be used to determine the leaf color of the described variety. The following Soybean varieties may be used as a guide to identify the colors listed on the form.

COLOR	-	VARIETY
Light Green		''Ada''
Medium Green		"Wilkin"
Dark Green		"Swift"

LEAF SIZE: The following varieties may be used as a guide to identify the relative size leaves.

31 2 E	YARICIT
Small	"Amsoy"
Medium	"Bonus"
Large	''Anoka''

PLANT TYPE: The following varieties may be used as a guide to identify the plant type.

TYPE	VARIETY
Slender	''Vansoy''
Intermediate	"Wirth"
Bushy	''Adelphia''